

SECTION III: REMARKS

A. Summary of Amendments to the Claims

By the present amendment, claims 1-11, 13, 15, 16, 18, 21-24, and 27 have been amended, and claims 19 and 28 have been cancelled.

The substantive amendments to independent claims 1 and 18 are supported by the specification, for example, at pages 1-3, and 5-7, and original claims 8 and 19. Amended claim 1 includes features previously recited in original claim 8, and amended claim 18 includes features previously recited in original claim 19.

The amendment to claim 8 is supported, for example, at page 3 and at Figure 4.

The amendment to claim 27 is supported by the specification, for example, at Figure 4, as well as at page 9.

Various amendments to claims 1-11, 13, 15, 16, 18, and 21-24 (e.g., removal of the numerical feature identifiers) consist primarily of typographical and formalistic changes.

The foregoing amendments are fully consistent with and supported by the originally-filed specification. No new matter within the meaning of 35 U.S.C. 132 has been introduced by the foregoing amendments.

B. Acknowledgement of Provisional Nonstatutory Double Patenting Rejections

The June 12, 2009 Office Action contained two provisional nonstatutory double patenting rejections, namely:

- a provisional rejection of claims 1-28 on the ground of nonstatutory obviousness-type double patenting over claims 1-36 of a copending patent application understood to be U.S. Patent Application No. 10/574,140¹; and

¹ The Office Action made reference to claims 1-36 of copending U.S. Patent Application No. 10/574,141, but it is noted that only 29 claims are pending in such application. Applicant is aware of the similar U.S. Patent Application No. 10/574,140 in which 36 claims are pending. Given that the number of claims (36) of the application recited in the double patenting rejection matches the number of claims pending in U.S. Patent Application No. 10/574,140, and the relationship to the subject matter claimed in such application, it is assumed that the examiner meant the non-statutory double patenting rejection to refer to claims 1-36 of

- a provisional rejection of claims 1-28 on the ground of nonstatutory obviousness-type double patenting over claims 1-29 of U.S. Patent Application No. 10/574,141.

Applicant acknowledges the foregoing provisional nonstatutory double patenting rejections. Upon allowance of the present application or U.S. Application No. 10/574,142, such rejections will be addressed by Application if grounds for one or more non-provisional double patenting rejections should exist.

C. Response to Claim Rejections Under 35 U.S.C. 112, First Paragraph

In the June 12, 2009 Office Action, claims 27-28 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. In particular, the examiner alleged that the specification does not disclose a computer program product or computer readable medium, or mention electronic data transmission². The examiner then stated that the specification should be amended to disclose a computer program product or computer readable medium, and mention electronic data transmission.

Claim 28 has been cancelled herewith, thus rendering the rejection of such claim moot. As detailed below, Applicant respectfully disagrees with and traverses the rejection of claim 27 as amended herewith.

By the present amendment, claim 27 has been amended to recite, *inter alia*, “[a] computer program product, comprising a storage medium having thereon computer program code ...³” Page 8 of the specification has also been amended to state that “... the functions of the grey scale compensation device 60 can also be realised as a software implementation, such as in the form of a computer program product including a storage medium having computer program code stored thereon.” Support for the amendment to claim 27 is found in the specification at page 8, original claims 27-28, and Figure 4, which depicts a schematic block diagram of a display device according to the claimed

U.S. Patent Application No. 10/574,140. If Applicant is incorrect in such assumption, then Applicant respectfully requests the opportunity to address any other double patenting rejection in the future.

² Office Action, page 4.

³ See claim 27.

invention, including a schematic representation of a storage medium⁴. The original specification describes amended claim 27 in sufficient detail that one skilled in the art would conclude that the inventor had possession of the claimed invention at the time of filing of the present application.

Accordingly, withdrawal of the rejection of claim 27 (as amended herewith) under 35 U.S.C. 112, first paragraph, is warranted, and is respectfully requested.

D. Response to Claim Rejections Under 35 U.S.C. 101

In the June 12, 2009 Office Action, claims 27 and 28 were rejected under 35 U.S.C. 101 for allegedly being directed to non-statutory subject matter. Claim 28 has been cancelled; accordingly, the rejection of such claim is moot. Applicant traverses the rejection under 35 U.S.C. 101 in application to claim 27 as amended herewith.

Regarding claim 27, the examiner's attention is directed to the following citation from MPEP Section 2106.01, which states, *inter alia*, that:

"a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory," and "a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory."⁵ (emphasis added)

⁴ See Figure 4. Additional support for a storage medium containing computer code is found in the specification at page 8, which describes an embodiment of the compensation device adapted for implementation as a software module, and use of that module in a computer processor. The examiner's attention is respectfully directed to the following quotation from MPEP § 2163 (Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, para. 1, "Written Description" Requirement), which states "What is conventional or well known to one of ordinary skill in the art need not be disclosed in detail. See *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d at 1384, 231 USPQ at 94. >See also *Capon v. Eshhar*, 418 F.3d 1349, 1357, 76 USPQ2d 1078, 1085 (Fed. Cir. 2005)...If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met. See, e.g., *Vas-Cath*, 935 F.2d at 1563, 19 USPQ2d at 1116; *Martin v. Johnson*, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972) (stating "the description need not be in *ipsis verbis* [i.e., "in the same words"] to be sufficient")."

⁵ See MPEP Section 2106.01: Computer-Related Nonstatutory Subject Matter; see also *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Since amended claim 27 recites “[a] computer program product, comprising a storage medium having thereon computer program code adapted, when said computer program code is loaded onto a computer...” (emphasis added), claim 27 is fully compliant with statutory requirements under 35 U.S.C. 101. Accordingly, withdrawal of the rejection of claim 27 is warranted, and is respectfully requested.

E. Response to Claim Rejections Under 35 U.S.C. 102(b)

In the June 12, 2009 Office Action, claims 1-8, 13, 18, 19, 23, 27, and 28 were rejected under 35 U.S.C. 102(b) as being allegedly anticipated by U.S. Published Patent Application No. 2001/0028356 to Balogh (hereinafter “Balogh”). Applicant respectfully traverses such rejection in application to the claims as amended herewith.

1. Law Regarding Anticipation

“Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration⁶.” It is not enough that the prior art reference disclose all the claimed elements in isolation. Rather, **“anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim⁷.”**

The standard for anticipation is not satisfied where the prior art reference merely discloses the “concept,” “essence,” “key,” or “gist” of the patented invention, as “concepts do not anticipate⁸.” Anticipation cannot be predicated on teachings in a references that are vague or based on conjecture⁹.

⁶ *W.L. Gore & Assocs. v. Garlock*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

⁷ *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added); *see also Glaverbel Societe Anonyme v. Northlake Marketing & Supply Inc.*, 33 USPQ2d 1496, 1498 (Fed. Cir. 1995) (“Anticipation ... requires identity of invention: the claimed invention, as described in appropriately construed claims, must be the same as that of the reference, in order to anticipate.”)

⁸ *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 1101 (Fed. Cir. 1985).

⁹ *Datascope Corp. v. SMEC, Inc.*, 776 F.2d 320 (Fed. Cir. 1985).

An allegation that a prior art reference anticipates a patent claim cannot be based on sections of a reference taken in isolation; rather **“the cited sections must be read in context¹⁰.”** This is consistent with the pronouncement of the Federal Circuit that “[t]he well established rule of law is that **each prior art reference must be evaluated as an entirety, and that all of the prior art must be evaluated as a whole¹¹.”**

2. The Rejections of Claims 1-8, 13, 18, 19, 23, 27, and 28 Should be Withdrawn Because Balogh Fails to Teach or Disclose All Elements of Such Claims

Balogh discloses a pixel element useful for displaying three dimensional (3D) images that “comprises means for generating substantially collimated, controllable light beams¹².” The pixel element disclosed by Balogh comprises “at least one set of substantially point source type, individually addressable light sources...¹³.” Balogh further discloses that the “main feature of such a pixel element is the ability to generate several independent light beams within a single unit...without the use of expensive and bulky active optical elements¹⁴,” and that “the greatest advantage of such a pixel element is the inherent simplicity of the device, which fully substitutes the functions of complicated and sensitive optical arrangements for producing a true 3D image¹⁵.”

In the Background section thereof, Balogh characterizes Hungarian Patent Application No. T/63503 as producing a 3D image via modulation of a light beam by deflecting a laser beam “toward the different viewing angles within the pixel, with the help of a controllable active optical element positioned in the image pixel¹⁶.” Balogh’s use of multiple independently controllable light beams is specifically intended to distinguish the foregoing use of active optical elements used to deflect a laser beam supplied to a pixel.

¹⁰ *In re Chmiel and O’Leary*, 262 F.2d 81, 120 USPQ 188, 190 (C.C.P.A. 1958) (emphasis added).

¹¹ *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 227 USPQ 337, 344 (Fed. Cir. 1985) (emphasis added).

¹² Balogh, pg. 1, paragraph 1.

¹³ Balogh, pg. 3, paragraph 34.

¹⁴ Balogh, pg. 2, paragraph 20.

¹⁵ Balogh, pg. 3, paragraph 24.

¹⁶ Balogh, pg. 1, paragraph 6.

Applicant's independent claim 1 requires, *inter alia*, "a grey scale compensation device for further controlling said light transmission characteristics of at least some pixels within a group to compensate for a predetermined viewing angle dependency of said optical characteristic." (Emphasis added.) Applicant's independent claim 18 similarly requires, *inter alia*, "processing image data to form grey scale pixel data values for each one of a plurality of separately addressable pixels in a display panel, ...the pixel data values each for controlling light transmission characteristics of a respective pixel to generate a grey scale image." (Emphasis added.)

Independent claims 1 and 18 of the present application therefore require control of pixels to regulate light transmission therethrough to generate a 3D image, as opposed to (A) control of active optical deflectors to cause selective deflection of a light beam provided to a pixel (as disclosed in the background section of Balogh), and as further opposed to (B) control of a multiple independent light beams (as disclosed in the detailed description of Balogh). Display devices disclosed by Balogh are not adapted to produce 3D images by use of a grey scale compensation device for controlling light transmission characteristics of pixels; rather, Balogh discloses methods that teach away from such modality. As a result, Balogh does not disclose a display device for producing a 3D image or associated method that includes all of the features of independent claims 1 and 18.

For at least the foregoing reasons, independent claims 1 and 18 are patentably distinguished over Balogh. Since dependent claims inherently include the features of the claims on which they depend (see 35 U.S.C. 112, fourth paragraph), the claims depending (whether directly or indirectly) from any of claims 1 and 18 are likewise patentably distinguished over Balogh. Accordingly, withdrawal of the rejections of claims 1-8, 13, 18, 19, 23, 27, and 28 is warranted, and is respectfully requested.

F. Response to Claim Rejections Under 35 U.S.C. 103

The June 2, 2009 Office Action contained multiple rejections under 35 U.S.C. 103, namely:

- a rejection of claims 9-12, 14, and 20-22 as being unpatentable for obviousness over Balogh in view of U.S. Patent No. 6,954,193 to Andrade, et al. (hereinafter, “Andrade”); and
- a rejection of claims 15-17 and 24-26 as being unpatentable for obviousness over Balogh in view of U.S. Patent No. 6,386,720 to Mochizuki (hereinafter, “Mochizuki”).

Such rejections are inapposite to the claims as amended herewith, as detailed below.

To support a rejection under 35 U.S.C. 103, the prior art reference(s) must teach all of the limitations of the claims¹⁷. In considering a reference for its effect on patentability, the reference is required to be considered in its entirety, including portions of teach away from the invention under consideration. Simply stated, the prior art must be considered as a whole¹⁸. “It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.”¹⁹

It has been previously demonstrated herein that Balogh fails to disclose all elements of Applicant’s independent claims 1 and 18 as amended herewith.

Andrade was cited by the examiner as allegedly disclosing features of dependent claims 9-12, 14, and 20-22²⁰. The examiner did not point to Andrade as teaching any features of original claims 8 or 19, which features have been incorporated into amended independent claims 1 and 18, respectively. Andrade discloses a method utilizing correction factors to compensate for variation in viewing angles between pixel locations and a user’s viewing position, to provide a consistent visual appearance with respect to a viewing position²¹. Such core teaching of Andrade teaches away from display of a three-dimensional image in which different views are displayed according to different viewing

¹⁷ MPEP § 2143.03

¹⁸ *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984); MPEP § 2141.02.

¹⁹ *Application of Wesslaur*, 353 F.2d 238, 241 (C.C.P.A. 1965); *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve*, 796 F.2d 443, 448 (Fed. Cir. 1986), *cert. denied*, 484 U.S. 823 (1987).

²⁰ June 12, 2009 Office Action, pages 9-12.

²¹ See, e.g., Andrade claim 1.

angles. It is therefore apparent that Andrade fails to remedy the above-identified deficiency of Balogh in disclosing all the features of Applicant's independent claims 1 and 18²² as amended herewith.

Mochizuki was cited by the examiner as allegedly disclosing features of dependent claims 15-17 and 24-26²³. The examiner did not point to Mochizuki as teaching any features of original claims 8 or 19, which features have been incorporated into amended independent claims 1 and 18, respectively. Mochizuki discloses control of LED emitters rather than pixels²⁴. It is therefore apparent that Mochizuki fails to remedy the above-identified deficiency of Balogh in disclosing all the features of Applicant's amended independent claims 1 and 18.

Neither Andrade nor Mochizuki remedy the above-identified deficiencies of Balogh in teaching all elements of Applicant's amended independent claims 1 and 18. As a result, such claims are patentably distinguished over any hypothetical combination of such references. Since dependent claims inherently include the features of the claims on which they depend²⁵, the claims depending (whether directly or indirectly) from any of claims 1 and 18 are likewise patentably distinguished over any hypothetical combination of Balogh, Andrade, and Mochizuki. Accordingly, withdrawal of all claim rejections (i.e., of claims 9-12, 14-17, 20-22, and 24-26) under 35 U.S.C. 103 is warranted, and is respectfully requested.

²² E.g., "a grey scale compensation device for further controlling said light transmission characteristics of at least some pixels within a group to compensate for a predetermined viewing angle dependency of said optical characteristic" as recited in Applicant's amended claim 1, and "processing image data to form grey scale pixel data values for each one of a plurality of separately addressable pixels in a display panel, ...the pixel data values each for controlling light transmission characteristics of a respective pixel to generate a grey scale image" as recited in Applicant's amended claim 18.

²³ June 12, 2009 Office Action, pages 12-14.

²⁴ Mochizuki discloses a light source device including a plurality of light emitting elements and adjusting means for individually adjusting the luminance of each light emitting element. (See Mochizuki, Abstract.) Mochizuki thus discloses control of LED emitters to modulate output, and does not disclose control of pixels (e.g., separate from an associated backlight) to regulate light transmission therethrough to generate a 3D image.

²⁵ See 35 U.S.C. 112, fourth paragraph.

CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of the now-pending claims are in condition for allowance. Examination of the enclosed claims and issuance of a notice of allowance are earnestly solicited. Should any issues remain that may be amenable to telephonic resolution, the examiner is invited to telephone the undersigned attorneys to resolve such issues as expeditiously as possible.

In the event there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 14-1270.

Respectfully submitted,

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